

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Rulemaking to implement the provisions of
Public Utilities Code § 761.3 enacted by Chapter
19 of the 2001-02 Second Extraordinary
Legislative Session.

Rulemaking 02-11-039
(Filed November 21, 2002)

**ADMINISTRATIVE LAW JUDGE'S RULING
SUMMARIZING RESULTS OF DECEMBER 20, 2002 MEETING OF
THE CALIFORNIA ELECTRICITY GENERATION FACILITIES
STANDARDS COMMITTEE**

As a service to the California Electricity Generation Facilities Standards Committee (Committee), the Commission has agreed to issue summaries of the results of the Committee's meetings via ruling. This ruling summarizes the result of formal votes and agreements reached during the December 20, 2002 of the Committee.

During the Committee meeting, the Committee made the following decisions by unanimous vote:

1. Commissioner Carl Wood was designated the presiding officer for the Committee's work.¹
2. Richard Clark was designated as the staff director of the Committee.²

¹ Reporters Transcript, December 20, 2002, Workshop, pp. 4-5.

² *Id.*, p. 5.

3. January 24 and February 3, 2003 were set as the dates for future meetings of the Committee.³
4. The Committee granted authority to Carl Wood and the assigned Administrative Law Judge (ALJ) to make adjustments in the schedule as necessary.⁴

In addition, the Committee formed agreements on several items without taking a formal vote. These agreements include:

1. Before each meeting, the Committee will create an agenda, e-mail it to the service list, and post it on the Commission's web site.⁵
2. Following a meeting, the ALJ assigned to the Committee will prepare a summary of the decisions reached by the Committee based on the reporter's transcript.⁶
3. The Commission will publish and maintain an initial service list on its website under the R.02-11-039 proceeding number to facilitate the service of information and comments provided to the Committee.⁷
4. The Commission would bind into the transcript of this proceeding, distribute via e-mail, post on its web site, and attach to this ruling the presentation that Mr. Pettingill gave to the Committee.⁸

³ *Id.*, p. 6.

⁴ *Id.*, pp. 24-25.

⁵ *Id.*, p. 7.

⁶ *Id.*, p. 8.

⁷ *Id.*, p. 18

⁸ *Id.*, p. 74. This material is attached as Appendix A.

Subsequently, pursuant to the authority delegated to Carl Wood and the ALJ, the date of service of opening comments was revised to January 17, 2003 and replies to January 21, 2002.

Therefore, **IT IS RULED** that:

1. The California Electricity Generation Facilities Standards Committee (Committee) completed its first meeting on December 20, 2002 and reached the decisions reported herein.

2. Those who wish to provide opening comments on the proposed maintenance standards may do so no later than January 17, 2003. Those who wish to reply may do so by January 21, 2003. The comments shall be sent via electronic mail to the service list, which can be accessed on the Commission's web site at www.cpuc.ca.gov.

Dated January 14, 2003, at San Francisco, California.

/s/ TIMOTHY J. SULLIVAN

Timothy J. Sullivan
Administrative Law Judge

**Attachment A
(CALIFORNIA ISO)**

- **Proposed Standards for GENERATION MAINTENANCE**
- **TODAY'S OBJECTIVES**
- **OBJECTIVE**
- **DESIGN PRINCIPLES**
- **GENERATION MAINTENANCE PROGRAM**
- **MAINTENANCE PERFORMANCE STANDARDS &
ASSESSMENT GUIDELINES**
- **PERFORMANCE STANDARDS**
- **GENERATING UNIT PERFORMANCE METRICS**
- **PERFORMANCE CONTROL CHARTS AND PERFORMANCE
THRESHOLDS**
- **Why was CUF chosen?**
- **Chart on CONTROL LIMIT, WARNING LIMIT, BENCHMARK**
- **VERIFICATION & AUDIT PROCESS**
- **PENALTIES**
- **REQUIREMENTS OF GENERATING ASSET OWNERS**
- **FEEDBACK RECEIVED**
- **BASIC PRECEPTS**
- **SUMMARY OF KEY POINTS**



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Proposed Standards for GENERATION MAINTENANCE

**California Electric Generation Facilities
Standards Committee
December 20, 2002**

**Philip D. Pettingill
CAISO Manager Policy Development**



TODAY'S OBJECTIVES

Review Program Objective

Review Design Principles

Review the Program Content

Review Original Feedback



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OBJECTIVE

The objective of the Generation Maintenance Program is to provide a comprehensive program for the capacity and reliability of California electric resources.

The program will:

- Promote Generator Availability
- Provide an objective measure of generator performance and likelihood of available capacity
- Confirm Ongoing Maintenance
- Enforce Compliance



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DESIGN PRINCIPLES

- Benchmark Performance related to capability and maintenance effectiveness
- Provide objective measure of generator performance
- Establish Common data standard – NERC GADS
- Recognize diversity
- Generic Standards scalable to specific circumstances
- Emphasize on self-improvement and monitoring



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GENERATION MAINTENANCE PROGRAM

- Overview
- Maintenance Performance Standards & Assessment
Guidelines
- Generating Unit Performance Metrics
- Verification & Audit Process
- Penalties
- Maintenance Guidelines for Electric Generating
Facilities



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Maintenance Performance Standards & Assessment Guidelines

- Establishes 18 qualitative performance standards one would expect to find in an effective maintenance program
- Includes a set of assessment guidelines to evaluate performance against each standard



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PERFORMANCE STANDARDS

Safety Performance	Work Management
Organizational Structure and Responsibilities	Plant Status and Configuration
Maintenance Management and Leadership	Spare Parts, Material and Services
Problem Resolution and Continuing Improvement	Training Support
Equipment Performance and Materiel Condition	Engineering and Technical Support
Maintenance Personnel Knowledge and Skill Performance	Chemistry Control
Balance of Maintenance Approach	Regulatory Requirements
Maintenance Procedures and Documentation	Equipment History
Conduct of Maintenance	Maintenance Facilities and Equipment



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Generating Unit Performance Metrics

- Defines data standards
 - NERC GADS Standards
- Defines primary Performance Indicator
 - Capacity Unavailability Factor (CUF)
- Describes benchmark development
 - Historical based for existing plants
 - Peer performance of new plants
 - Pro forma for new technologies
- Establishes data reporting requirements
 - Real Time
 - Periodic Performance Summary



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PERFORMANCE CONTROL CHARTS AND PERFORMANCE THRESHOLDS

- Unit performance is gauged against it's own historic performance.
- Control Charts are constructed using historic data to define ranges of expected performance.
- Quarterly CUF values are plotted and tested for changes in performance.
- Proven tests provide statistically defensible indications of jumps, shifts or trends in performance



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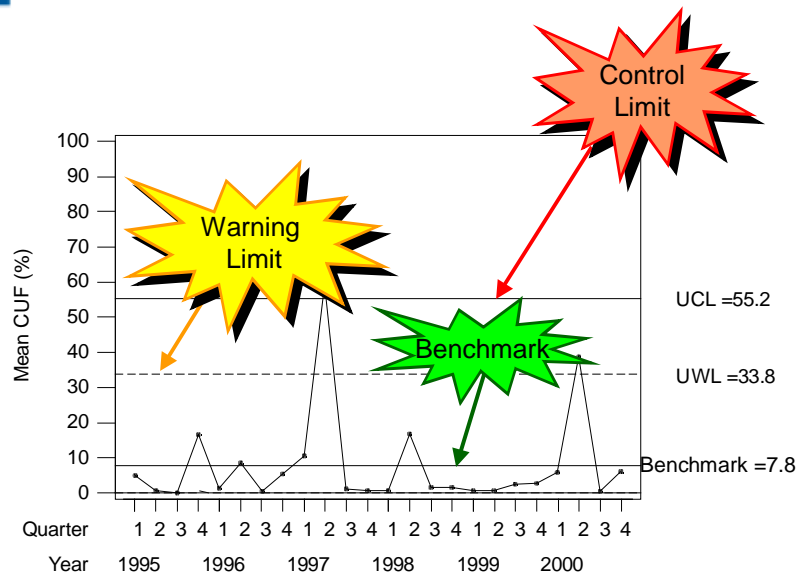
Why was CUF chosen?

- Indicative of the amount of CAPACITY lost to the state
- Every Term in the Numerator is affected by the quality of maintenance program
- The denominator is unaffected by maintenance program
- It adjusts for seasonal derates, e.g. ambient and water (fuel) restrictions



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VERIFICATION & AUDIT PROCESS

- Self Certification Process
 - Initial Certification within 90 days of implementation
 - Periodic re-certification every 2 years
 - Notification of significant program change
- Random audit process (10% per year)
- Triggered audits for “questionable” performance



PENALTIES

- Defines an evaluation process
 - Performance metrics
 - Performance evaluations
 - Audit results
- “Finding of Questionable Practice”



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REQUIREMENTS OF GENERATING ASSET OWNERS

- **Develop historical performance data for their units, and provide to CPUC within 60 days of Program Issuance.**
- **Develop internal procedures to report “Change of State Data” in real time. Notification of change in Generating Unit status is required by the existing ISO Tariff, Dispatch Protocol, 3.4.2.**
- **Perform Self Assessment against the Performance Standards and Assessment Guidelines.**
- **Provide Initial Certification Report to CPUC within 90 days of program issuance.**



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FEEDBACK RECEIVED

- No “off-the-shelf” maintenance or performance standards
- Generators far to diverse for single checklist... prescriptive checklist just not appropriate
- Statistical performance benchmarks not appropriate, but if used time frame must be sufficiently long to be statistically significant
- Owner may have an generator which is planned for retirement
- Volunteers to serve on advisory committee



BASIC PRECEPTS

- **Generating Unit Performance Metrics**
 - Objective measure of maintenance effectiveness
 - Standard reporting system of unit status
- **Maintenance Performance Standards & Assessment Guidelines**
 - Qualitative review against industry guidelines
- **Verification & Audit Process**
 - Annual random selection and field inspections
 - Findings of Questionable Performance



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SUMMARY OF KEY POINTS

- Focus on Capacity and Availability**
- Utilize Objective Performance Basis**
- Establish Consistent Data Reporting**
- Confirm Commitment to Maintenance**
- Emphasize Self-improvement and monitoring**
- Mechanism for Improving Standards**
- Enforce Compliance**

CERTIFICATE OF SERVICE

I certify that I have by electronic mail, to the parties to which an electronic mail address has been provided, this day served a true copy of the original attached Administrative Law Judge's Ruling on all parties of record in this proceeding or their attorneys of record.

Dated January 14, 2003, at San Francisco, California.

/s/ SUSIE TOY

Susie Toy

N O T I C E

Parties should notify the Process Office, Public Utilities Commission, 505 Van Ness Avenue, Room 2000, San Francisco, CA 94102, of any change of address to ensure that they continue to receive documents. You must indicate the proceeding number on the service list on which your name appears.

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If specialized accommodations for the disabled are needed, e.g., sign language interpreters, those making the arrangements must call the Public Advisor at (415) 703-2074, TTY 1-866-836-7825 or (415) 703-5282 at least three working days in advance of the event.